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Congenital Cardiology Solutions

PREGNANCY AFTER FONTAN OPERATION: EARLY AND LATE OUTCOMES

Poster Contributions

Poster Sessions, Expo North

Saturday, March 09, 2013, 10:00 a.m.-10:45 a.m.

Session Title: Congenital Cardiology Solutions: Fontan Physiology in the Adult - Liver, Pregnancy and Survival

Abstract Category: 12. Congenital Cardiology Solutions: Adult

Presentation Number: 1117-115

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Background: The Fontan procedure is the definitive operation for patients with single ventricle physiology. As more women with Fontan operations reach childbearing age, it is important to determine the impact pregnancy has on short and long-term outcomes. The purpose of this multicenter study was to determine outcomes during and after pregnancy in women following Fontan operation.

Methods: A retrospective chart review was performed at 12 North American centers of 45 women who reported a pregnancy after Fontan operation.

Results: There were 71 pregnancies which resulted in 51 (73%) live births (12 spontaneous abortions, 3 therapeutic abortions, 2 fetal demise). Of the live births, the mean gestational age was 34 (range 24-40) weeks and the median birth weight was 2169 gm (760-3572) gms. Thirty-three percent (n=17) of pregnancies were complicated by an adverse maternal cardiac event; including heart failure (n=5), arrhythmias (n=12: atrial 10, ventricular 2). There were no maternal deaths during pregnancy. One woman had a cardiac arrest during delivery, but was successfully resuscitated and discharged to home. Eleven of the adverse cardiac events occurred in the early post partum period and 1 occurring 8 month post-delivery. There was one neonatal death due to prematurity (760 gm infant). Two children were born with CHD (ASD, VSD). Obstetrical events occurred during pregnancy or delivery in 25/48 (52%) and 6 events occurred during the post-partum period. Late follow up was available for 67% (29/45) of the women. The mean follow up time after pregnancy was 7.74 years (range 1-23 years). There were 5 late deaths. The mean interval from delivery to death was 12.8 years (range 3-18 years). Cause of death included thromboembolism (n=2), ventricular failure (n=2) and unknown (n=1).

Conclusions: Pregnancy in women with Fontan circulation is associated with risk for the mother and the baby. While there were no maternal deaths during pregnancy in this series, it is unclear from this data if long-term maternal mortality is affected, further prospective and controlled studies are needed to address this issue. These findings should form part of preconception counseling in women post-Fontan.